



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2012-1182; Directorate Identifier 2012-SW-062-AD;
Amendment 39-17251; AD 2012-22-14]**

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding an existing Emergency airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-70, S-70A, S-70C, S-70C(M), and S-70C(M1) helicopters with a certain part-numbered intermediate gearbox (IGB). The existing Emergency AD requires a one-time inspection of the internal oil passages of the IGB for an obstruction. That Emergency AD was prompted by an accident that resulted from blockage of oil in the IGB by a plug that was inadvertently left in the IGB during the coating of the IGB housing. We are issuing this supersedure to that Emergency AD to include two additional part numbers of affected IGBs and identify a specific date since new or overhaul of the affected IGBs. The actions specified by this AD are intended to detect a plug in the IGB and prevent overheating and seizing of the IGB, failure of the tail rotor drive output shaft, loss of tail rotor drive, and subsequent loss of control of the helicopter.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF

PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

EXAMINING THE AD DOCKET: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main

Street, Stratford, CT 06614; telephone (800) 562-4409; email tsslibrary@sikorsky.com; or at <http://www.sikorsky.com>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Mike Davison, Flight Test Engineer, Boston Aircraft Certification Office, FAA, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7156; fax (781) 238-7170; email michael.davison@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

On October 13, 2011, we issued Emergency AD 2011-22-51, which was made immediately effective to all known U.S. owners and operators of Sikorsky Model S-70, S-70A, S-70C, S 70C(M), and S-70C(M1) helicopters. That Emergency AD requires a one-time inspection for any obstruction of the internal oil passages of the IGB, part number (P/N) 70357-06300-044, with 100 or less hours time-in-service since new or overhaul. If there is an obstruction in an oil passage, the Emergency AD requires replacing the IGB with an airworthy IGB before further flight. That action was prompted by an accident involving a Model MH-60R helicopter in which the IGB output shaft failed and the tail rotor drive was lost after the IGB overheated and seized up. The output shaft failed because a protective plug, which was installed in an oil passage of the IGB to protect the oil passage during coating of the IGB housing as part of the manufacturing process, was inadvertently left in the IGB and blocked the internal oil passages of the IGB. The IGBs for Model MH-60R helicopters are manufactured and overhauled in the same facility as IGBs for Model S-70, S-70A, S-70C, S-70C(M), and S-70C(M1) helicopters.

Actions Since Existing Emergency AD Was Issued

Since we issued Emergency AD 2011-22-51, we discovered we inadvertently omitted two P/Ns and a specific date since new or overhaul of the affected IGBs in the emergency AD. Emergency AD 2011-22-51 is applicable to Model S-70, S-70A, S-70C, S-70C(M), and S-70C(M1) helicopters with an IGB, P/N 70357-06300-044, with 100 or less hours time-in-service (TIS) since new or overhaul. In issuing this superseding AD, we are requiring the same actions, but revising the applicability to include IGB

P/Ns 70357-06300-042 and 70357-06300-043, in addition to IGB P/N 70357-06300-044.

We are also adding a specific date, so that the applicability only includes those IGBs that had 100 or less hours time-in-service since new or overhaul on October 11, 2011.

FAA's Determination

We are issuing this AD because we reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop in other products of these same type designs.

Related Service Information

We reviewed Sikorsky Aircraft Corporation Alert Service Bulletin No. 70-06-29A, dated October 11, 2011 (ASB). The ASB specifies:

- A one-time borescope inspection of the lubrication passages from the oil scupper to the input and output housing.
- Disassembling the IGB for inspection as an alternative to the borescope inspection.
- Adding an "A" suffix to the serial number of any IGB that has been inspected.

AD Requirements

This AD requires, before further flight, borescope inspecting the IGB for any obstruction in the oil passages. As an alternative to the borescope inspection, this AD allows disassembling the IGB and inspecting the oil passages for any obstruction. If there is any obstruction in any oil passage, replace the IGB with an airworthy IGB before further flight. These actions must be accomplished in accordance with specified portions of the ASB described previously.

Differences between this AD and the Service Information

This AD does not apply to the Model H-60 helicopter as it does not have a U.S. type certificate. This AD does not require returning any parts to Sikorsky nor does it require marking the IGB after inspection.

Costs of Compliance

We estimate that this AD will affect 9 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. It will take about 2 work-hours to perform a borescope inspection at an average labor rate of \$85 per work-hour. Based on these figures, we estimate the cost of the inspection on U.S. operators to be \$1,530 or \$170 per helicopter. If any obstruction is found in any oil passage, we estimate that it will take about 3 work-hours to replace the IGB and required parts will cost about \$21,283, for a total cost of \$21,538 per helicopter.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the required corrective actions must be accomplished before further flight. Therefore, we find that notice and opportunity for prior public comment are impracticable and contrary to the public interest and that good cause exists for making this amendment effective in less than 30 days.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's

authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2012-22-14 **Sikorsky Aircraft Corporation:** Amendment 39-17251;

Docket No. FAA-2012-1182; Directorate Identifier 2012-SW-062-AD.

(a) Applicability.

This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-70, S-70A, S-70C, S-70C(M), and S-70C(M1) helicopters with an intermediate gearbox (IGB), part number 70357-06300-042, 70357-06300-043, or 70357-06300-044, with 100 or less hours time-in-service since new or overhaul of the IGB on October 11, 2011, certificated in any category.

(b) Unsafe Condition.

This AD defines the unsafe condition as blockage of the internal oil passages of the IGB by a protective plug, that could result in overheating and seizing of the IGB,

failure of the tail rotor drive output shaft, loss of tail rotor drive, and subsequent loss of control of the helicopter.

(c) Other Affected ADs.

This AD supersedes Emergency AD No. 2011-22-51, Directorate ID 2011-SW-056-AD, dated October 13, 2011.

(d) Effective Date.

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(e) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions.

Before further flight:

(1) Borescope inspect the IGB for any obstruction in the oil passages. Borescope inspect in accordance with the following portions of Sikorsky Alert Service Bulletin No. 70-06-29A, dated October 11, 2011 (ASB), except this AD does not require returning any parts to “depot” or Sikorsky:

(i) The Accomplishment Instructions, Section 3., paragraphs A.(1) through A.(3)(a);

(ii) Equipment and Materials and Inspection sections of Appendix I; and

(iii) Figures 1 through 10 of Appendix I.

(2) As an alternative to the requirements of paragraph (f)(1) of this AD, disassemble the IGB and inspect the oil passages for any obstruction. Removing any

obstruction from the IGB does not make it airworthy.

(3) If there is any obstruction in any oil passage, replace the IGB with an airworthy IGB before further flight.

(g) Special flight permits.

Special flight permits are prohibited.

(h) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Mike Davison, Flight Test Engineer, Boston Aircraft Certification Office, FAA, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7156; fax (781) 238-7170; email michael.davison@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(i) Subject.

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

(j) Material Incorporated by Reference.

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Sikorsky Aircraft Corporation Alert Service Bulletin No. 70-06-29A, dated October 11, 2011.

(ii) Reserved.

(3) For Sikorsky service information identified in this AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT 06614; telephone (800) 562-4409; email tsslibrary@sikorsky.com; or at <http://www.sikorsky.com>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may also view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on October 30, 2012.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.